

Cholera
An Essay
on the
disease

Cholera Morbus

by

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Cholera Morbus

Is a disease of warm climates, in which it occurs at all seasons of the year. It is not confined exclusively to warm latitudes, but in temperate climates, it is nearly always in the warm season, particularly in the months of August and September, that it prevails. It is particularly liable to appear when long continued heat, is alternated with heavy rains suddenly cooling the atmosphere. This disease has frequently raged as an epidemic in the tropical climates, and some authors, on account of its malignity and prevalence in those climates, have even asserted it to be contagious; an opinion it appears to me not supported by sufficient evidence; the British settlements in India and the East India Islands, are the principal seats of this disease where it frequently rages with great mortality.

Authors differ exceedingly as to the cause of this disease. While some, as Cullen and Thomas, make the disease consist in an extraordinary secretion of

acrid bile, produced by the action of heat upon the hepatic system, others, as Johnson and Carter, deny that bile has any agency whatever in its production. I have as yet ascribed as the cause of the disease an engorgement of the vessels of the liver, produced by a sudden check of perspiration. He supposes that during the day, the capillaries on the surface are stimulated to excrete action by heat, and that any sudden change in the atmosphere, produced either by rain or the exposure of the patient to the night air, is sufficient to destroy that equilibrium in the circulation upon which health depends, in consequence of which the extreme vessels of the liver sympathising with those upon the surface, arrest the circulation through the portal,eliac and mesenteric vessels, and thus the Biliary secretion is suspended, and that the vomiting and purging which occur are altogether an effort of nature to release herself of this engorgement. Without commenting upon this doctrine of Dr. Johnson, I shall merely observe

that Cholera seems to be evidently a gastric affection, partaking of the nature of Bilious and Intermittent fevers. In support of this doctrine it may be urged, that Cholera is always found to be more prevalent, at that season of the year, when Bilious and Intermittent fevers make their appearance, and whatever may be their predisposing cause, it is evident, that they both have frequently the same exciting cause. What is more common than for a person labouring under the predisposing cause of Bilious fever upon getting wet, or exposing himself to the night air, to be attacked with the disease? the same may be said of Cholera, an attack of which is frequently brought on in the same way. Let a number of persons expose them selves upon a cold windy day in the month of March, some will be attacked with Pleurisy, others with Catarrh, yet no one will deny, that the two diseases are not excited by the same cause, or that they both do not consist in inflammation, modified

by the different tisues which it affects, being seated in the one instance in a serous, in the other in a mucous membrane. So of Bilious fever and Cholera Mortis, the same cause which would have produced Bilious Fever, by exerting itself upon the Stomach and bowels, brings on an attack of Cholera. That the disease in question is evidently gastric in its origin, and that the Liver is secondarily affected, I think may be inferred from the Symptoms of the disease. The first discharge always consists of the acrid, very contents of the stomach, and Bile does not make its appearance, until the vomiting has been repeated several times; now if Bile were the cause of this disease (as is contended by some) it ought to be brought up by the first efforts, but the contrary of this is known to take place. Moreover, the disease is frequently excited by articles acting immediately upon the stomach itself, as by irregularities either in eating or drinking. A very remarkable instance of this once

came under my knowledge, which I will relate. In the summer of 1823 a company of twelve persons eat of Crabs, which proved to be spoiled, on the night of the same day, they were all, with the exception of three, attacked with Cholera, accompanied with discharges of bile, both by vomiting and by stool. In this case, the disease was doubtless brought on by the action of these articles upon the stomach, and the discharge of bile followed as a secondary effect.

Another argument in support of the gastrico-origen of Cholera is, that the most important indication in the treatment, is to allay the irritability of the stomach; as soon as this is accomplished, in most cases, the destroying symptoms cease.

Symptoms

Cholera usually commences with nausea, tenderness of the abdomen, pain and distension, which is specially followed by a severe vomiting

the other don't make up mind yet have not
arrived, don't you just see it now and the
old don't care about it and like and if
they don't care about them don't you want to
get in them and you will then don't
do well if you want to do well if you
want to be happy with me and the
old ones don't care about it and if you
want to be happy in them you will
not be happy but it will be well if you
want to get in them and the old ones
will be happy in them and the old ones
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will be happy in them and the old ones
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will be happy in them and the old ones

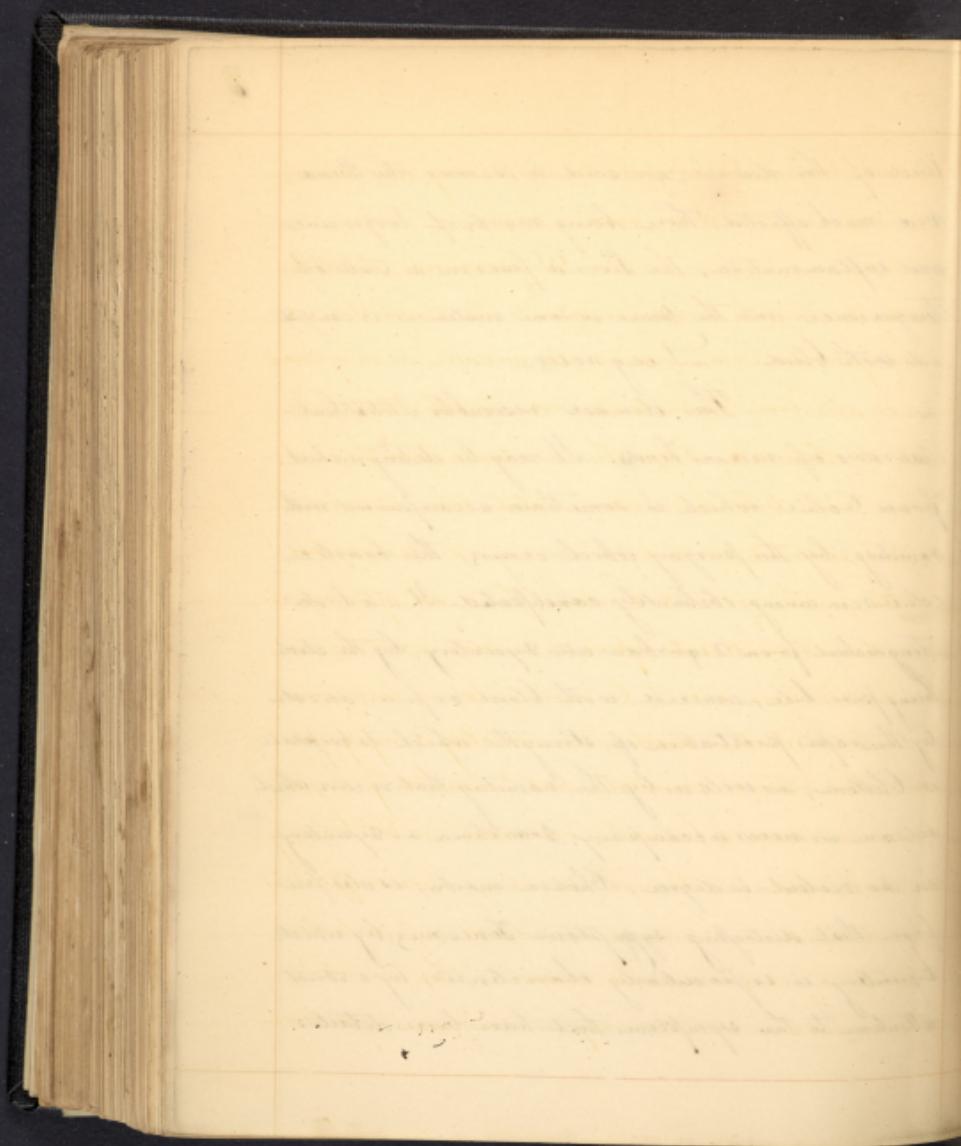
and purging. The matter discharged from the stomach, at first, consists of its ordinary content, mixed perhaps with phlegm or mucus, while the discharges from the bowels are in the commencement thin and watery, but the disease has not continued long, before they become attenuated, and now we have copious discharges of bile both by vomiting and by stool. The pulse which from the commencement of the disease was weak and fluttering, becomes still more so, there is usually great thirst, and a severe head ache, arising from sympathy with the stomach; the respiration is hurried, the extremities cold, the surface is also cold and covered with a clammy sweat, and together with these symptoms there is great depression of strength. If the patient is not speedily relieved cramps of the muscles of the abdomen and extremities, sinking of the eyes, sickness, and sinking of the pulse supervening, terminate his existence.

Disections of those who have

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died of this disease, are said to discover the Brama
vise much affected, there being marks of turgescence
and inflammation, the Liver is found in a state of
turgescence and the Brain in some instances is conges-
ted with blood. Diagnosis.

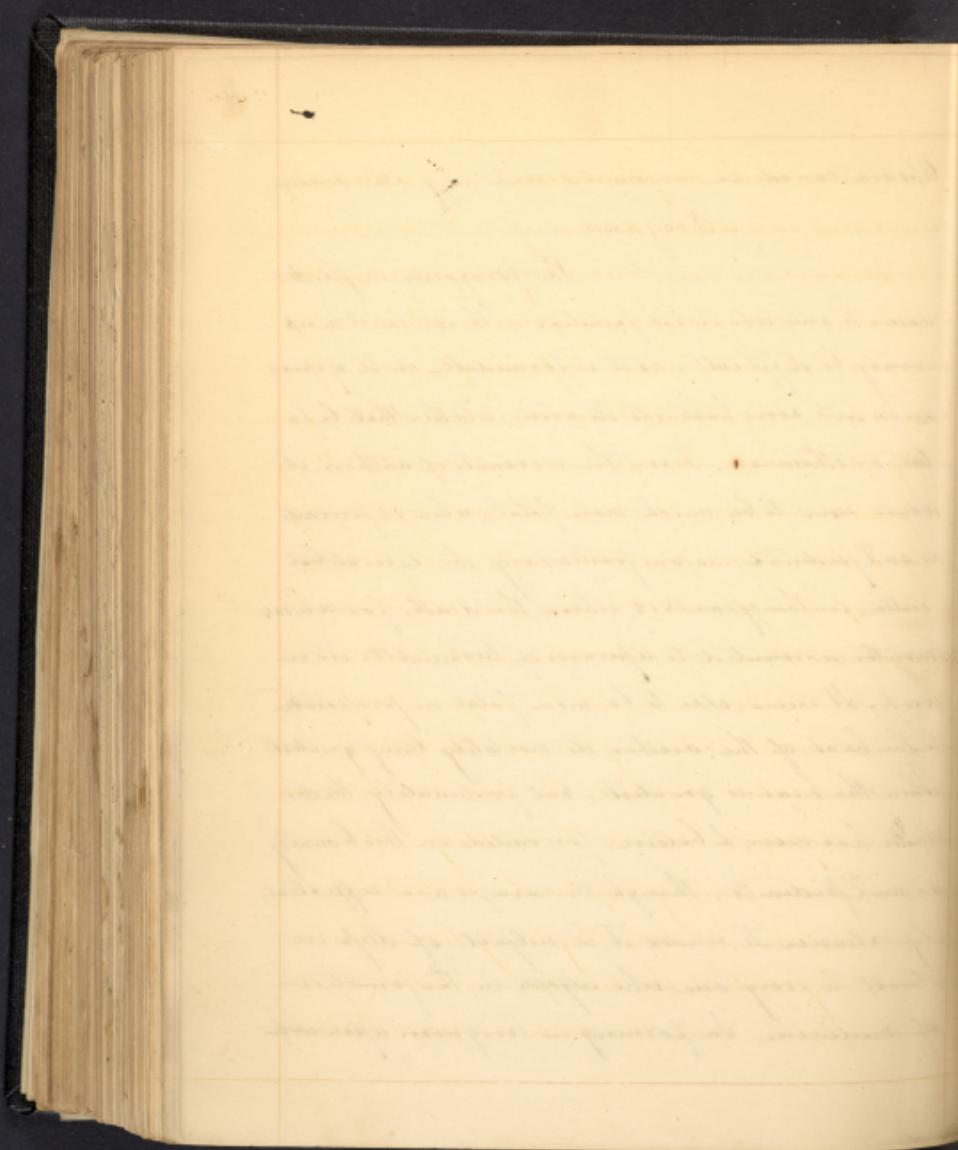
This disease resembles Intestinal
disorders of various kinds. It may be distinguished
from Colic, which is sometimes accompanied with
vomiting, by the purging which occurs, the bowels in
colic remaining obstinately constipated. It is to be dis-
tinguished from Diarrhoea and Dysentery, by the stools
being pure bile, mixed with blood or feces, and also
by the rapid prostration of strength, which takes place
in Cholera, as well as by the vomiting that occurs, which
seldom or never accompanies Diarrhoea or Dysentery
in so violent a degree. Cholera morbus is also pro-
foundly destroying the bowels. Tenesmus, by which
Dysentery is so peculiarly characterised; by a strict
attention to the symptoms, that have been detailed



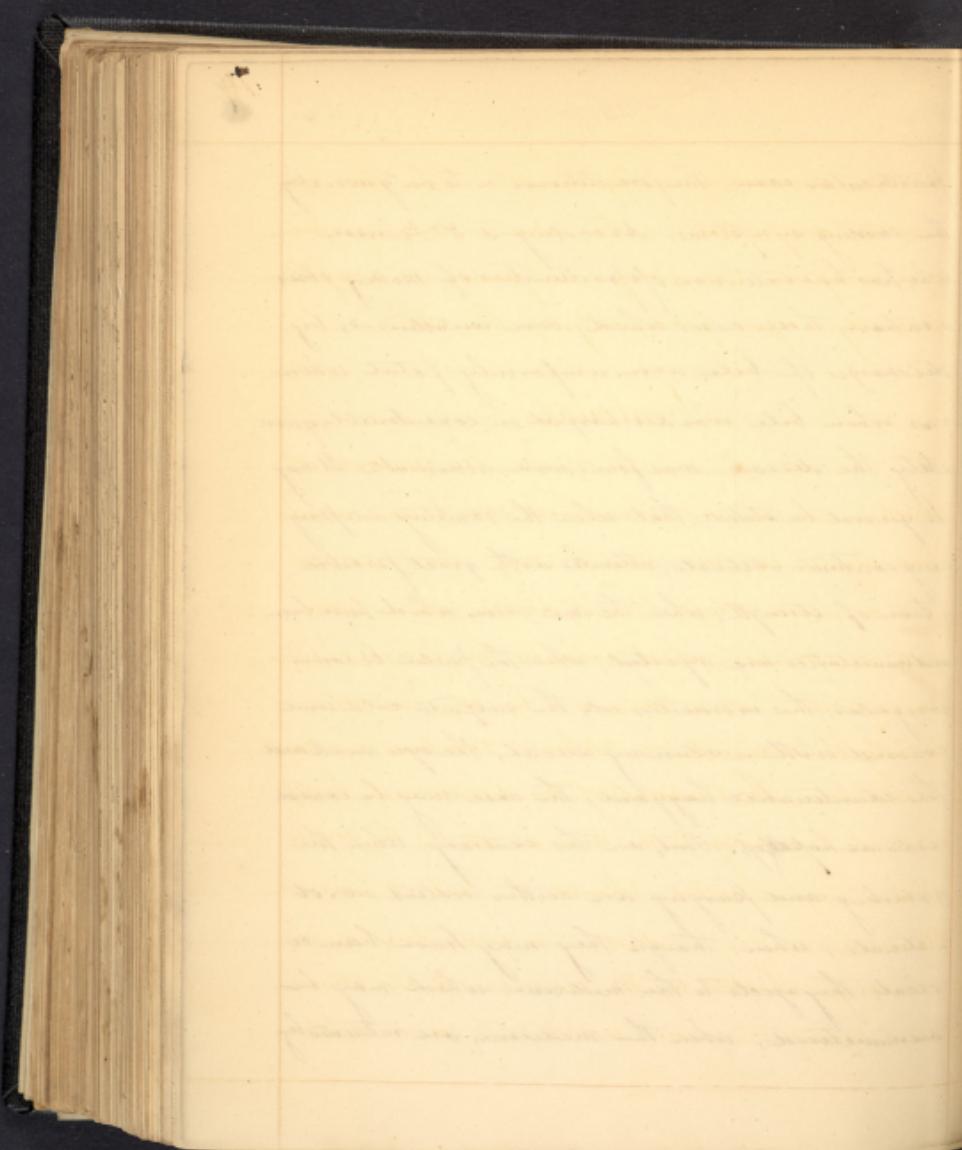
Cholera cannot be confounded with any other disease.

- Prognosis.

The prognosis in this disease is very difficult, as it is formidable in its appearance and soon hastens to its crisis, whether that be fatal or otherwise. From the accounts of authors, it would seem to be much more fatal, when it prevails as an Epidemic, as was, particularly the case at Calcutta, in the year 1818, where the death, for several months amounted to upwards of two hundred in a week. It seems also to be more fatal in proportion to the heat of the weather, its mortality being greatest when the heat is greatest; but fortunately the disease has never, I believe, prevailed in this country as an Epidemic, though its ravages are sufficiently extensive to render it a subject of deep interest to every one who engages in the practice of medicine. In forming a prognosis upon each



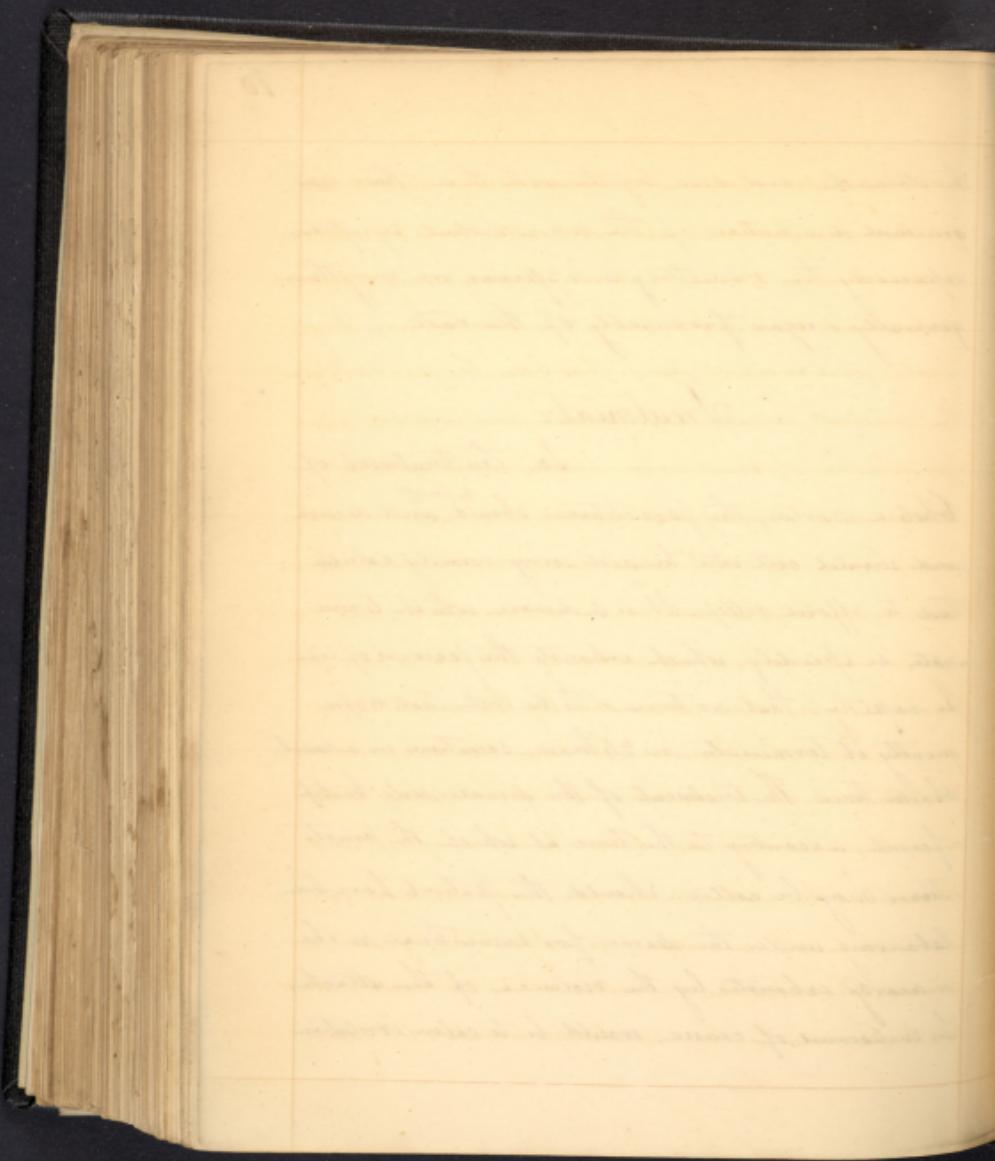
particular case, the practitioner is to be guided by the existing symptoms. According to Dr. Johnson, who has had extensive opportunities of making observations, those cases which were unattended by discharge of bile were uniformly fatal, whereas when bile was discharged in considerable quantity, the disease was found more remediable. It may in general be stated, that when the vomiting and purging continue obstinate, attended with great prostration of strength, when the medicines which have been administered are rejected, when the pulse becomes irregular, the extremities cold, the surface cold and covered with a clammy sweat, the eyes sunken and the countenance haggard, the case may be considered as hopeless. But, on the contrary, when the vomiting and purging are neither violent nor obstinate, when, though they may have been violent, they yield to the medicines which may be administered; when the medicines are retained by



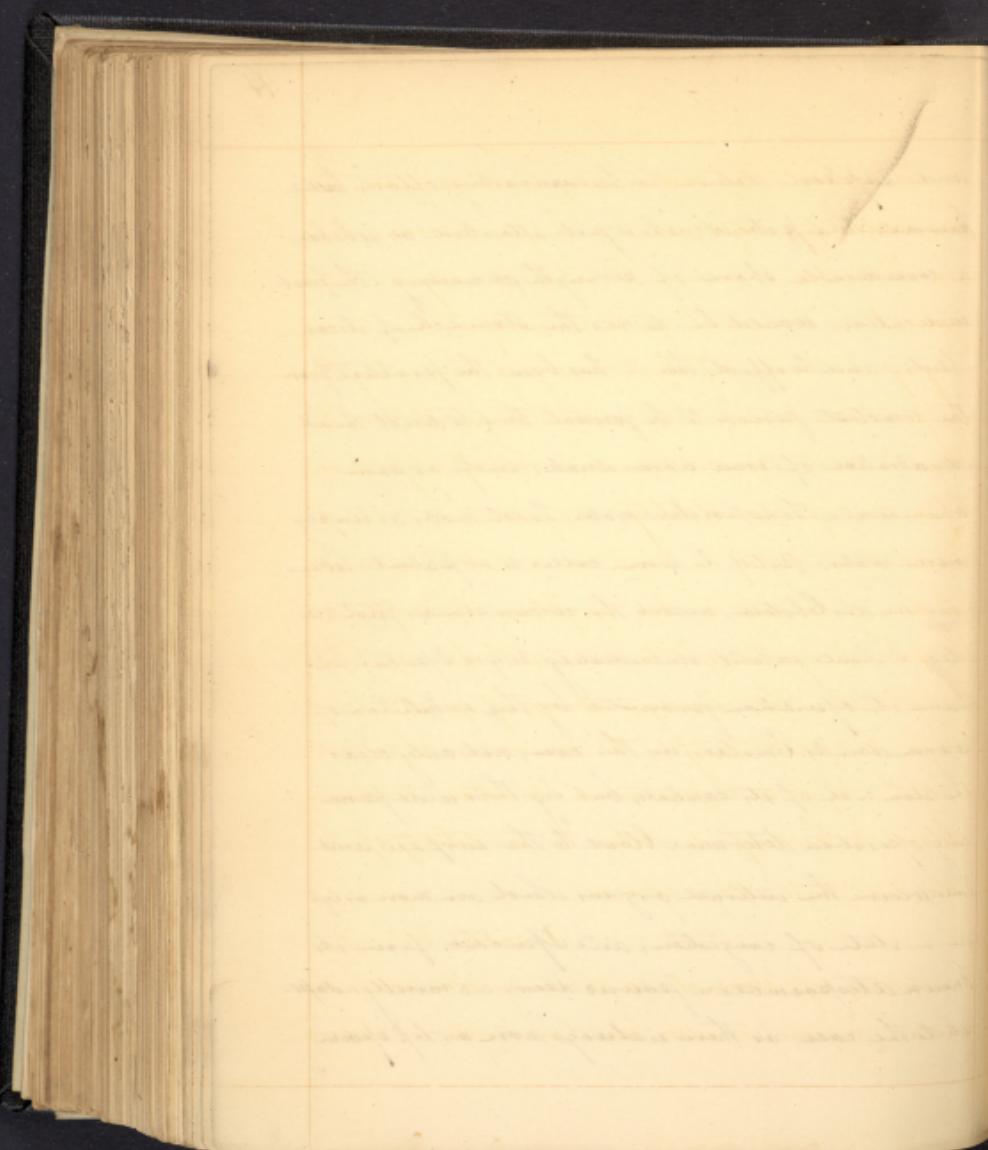
the stomach, and when together with these, there is a gradual diminution of the more violent symptoms, especially the vomiting and spasms, we may then generally augur favourably of the case.

Treatment.

In the treatment of Cholera Mortis, the practitioner should ^{be prompt} and decisive, and should call into his aid every remedy calculated to afford relief. It is a disease which terminates so speedily, which exhausts the powers of life so rapidly, that no time is to be lost. Not unfrequently it terminates in 24 hours, sometimes in a much shorter time. The treatment of this disease, will be different, according to the time at which the practitioner may be called. Should the patient have been labouring under the disease for some time and he is nearly exhausted by the violence of the attack, his endeavours, of course, would be to calm irritation

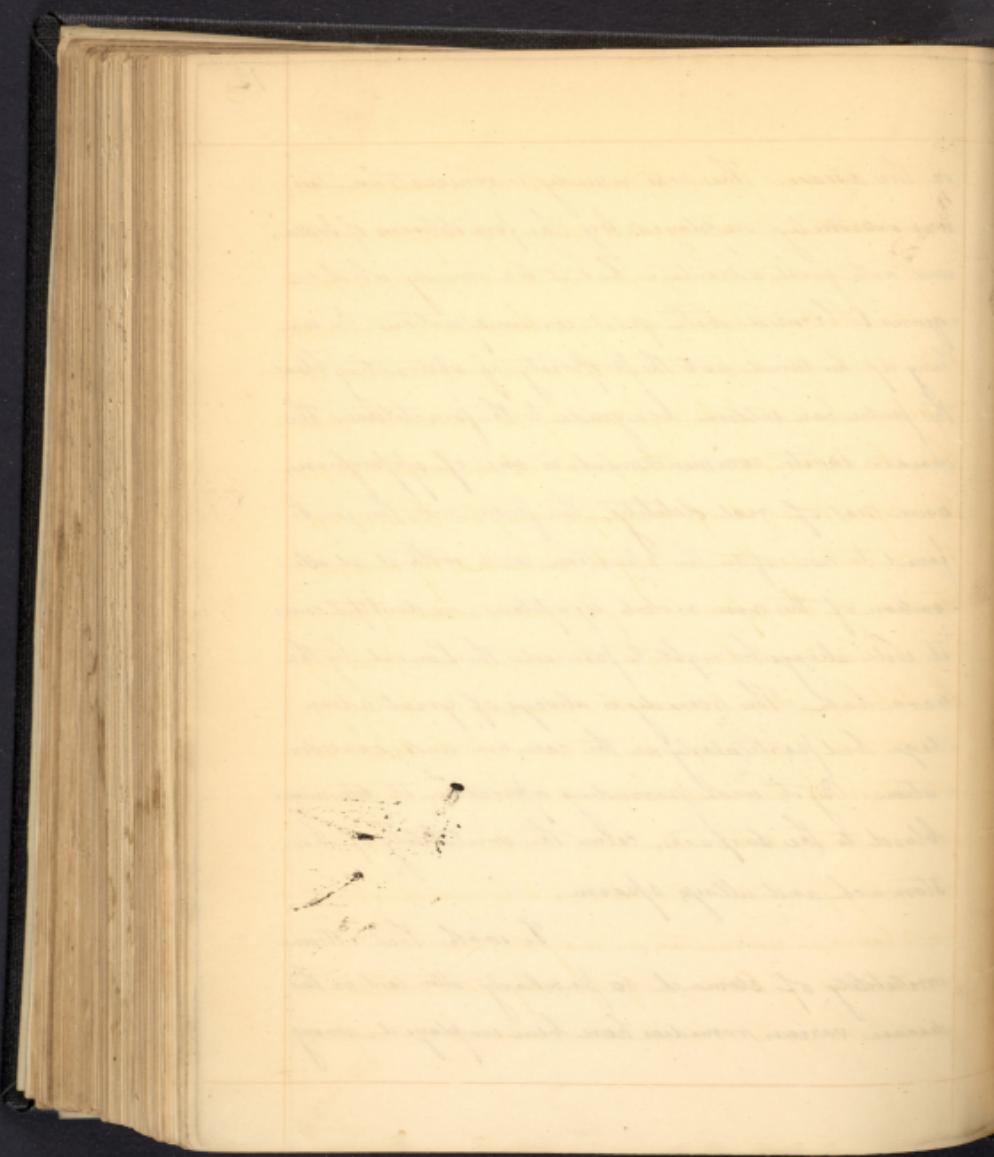


and support nature in her unavailing efforts, but to
however, to a patient, who is just attacked or who has
a considerable share of strength remaining, the first
indication would be to rise the stomach of its con-
tents; and to effect this, it has been the practice from
the remotest periods to the present time to direct the ad-
ministration of some warm drink, such as warm
Chamomile Tea, Chicken water, Loast water or simply
warm water. But if I were called to a patient labour-
ing under Cholera, under the circumstances just sta-
ted, I should exhibit immediately 20 grs. Ipecac, and
have its operation promoted by the exhibition of
warm drinks. Emetics, in this case, not only clear
the stomach of its contents, but by their wide pen-
etrating operation determine blood to the surface, and
thus relieve the internal organs which are more or less
in a state of congestion; and Ipecac, from its
known aperientive powers seems admirably adapt-
ed to the case, as there is always more or less opium



in the disease. The next remedy is venesection, this was extensively employed by the practitioners of India, and with great advantage, but it is a remedy which requires to be used with great circumspection. In making up his mind as to the propriety of abstracting blood, the pulse can seldom be a guide to the practitioner. The disease in its commencement is one of oppression, and not of real debility, the pulse will therefore be found to rise after the operation, and with it an alleviation of the more violent symptoms; in doubtful cases it will always be right to precede the Lancet by the warm bath. This remedy is always of great advantage but particularly in the case now under consideration. By its wide pervading operation it determines blood to the surface, calms the irritability of the stomach and allays spasms.

To sooth that extreme irritability of stomach so peculiarly attendant on this disease various remedies have been employed, among



which opium from the accounts of different authors, seems entitled to the greatest share of confidence, it may be administered as soon as the stomach is evacuated, but in whatever state of the disease it is employed, it should be prefered in the solid form made into a pill. Should it be rejected by the stomach, it should then be administered in the form of an Enema, because two opii in a gill of muleague may be thrown up the rectum as often as may be demanded by circumstances; or the opium may be administered (provided the stomach will bear it) in the manner practised by Dr Johnson, combined with calomel in the proportion of $\frac{1}{4}$ gr of the former to $\frac{1}{2}$ grs of the latter. The advantages of this combination are, that the stomach is calmed and at the same time the Liver is restored to its healthy function. This dose is to be repeated every 2 or 3 hours as circumstances may demand.

Small doses of Calomel, frequently administered are said to be highly efficacious in calming the stomach.

in this disease. 5 gr is to be given every half hour.

To assist the remedies already enumerated, stimu-
lating applications may be made to the surface over
the region of the stomach, such as fomentations with
warm brandy, or mint, steeps in warm brandy may
be applied, or the clove bag, prepared by cutting peal
- veriges clover in flannel) wrung out of warm spi-
rit may be applied over the region of the stomach.

The application of a blister will sometimes arrest
the vomiting almost immediately; should the patient
become very weak, stimulants should be administered,
warmth should be applied to the extremities by means
of warm bricks or bottles, filled with warm water.

Blisters may also be applied to the ankles and wrists.
These remedies will, in ordinary cases be found suf-
ficient, but in the violent cases we must resort
to more efficient means, in order to produce a prompt
- evication than can be effected by cathartics. The
India practitioners have used and recommended

the application of Nitric acid, which is to be applied over the stomach, 2 parts of the acid mixed with one of water are to be put on by means of a feather or hair pencil, this very speedily produces a sharp pain, the acid is then to be neutralized by a solution of Potash and the sore to be treated as a common blister, Large doses of diluted Sulphuric acid, are said to be highly efficacious in subduing the irritability of the stomach. Small doses of Nitric acid combined with an infusion of Chamomile also said to have succeeded in calming the stomach when opium had failed. As the more violent symptoms subside, Calomel should be given in small and repeated doses, with a view to carry off, and at the same time correct the morbid secretions, while its operation may be promoted by the oleum ricini.

After an attack of this disease the patient is left very much debilitated, requiring with a view to strengthen the stomach as well as the system, some mild Tonics such as bo-

rumbo or Gentian. Costiveness must be obviated by small doses of Rhubarb. I have said nothing of diet in this disease, because it seldom becomes necessary for the patient to take food being of so short a continued, but on recovering from an attack, the strictest attention should be paid to regimen. The diet should consist of the lightest and most digestible articles. The patient should avoid exposing himself to the hot sun or night-air, moderate exercise so as not to produce fatigue will be serviceable, and above all, he should, in deasur to keep up the healthy action of the skin by wearing flannel. This is of the utmost importance and should by no means be neglected.

With these observations I conclude my remarks on Cholera Morbus, in doing which, can dear compels me to acknowledge the assistance I have derived from Butler, Thomas, Johnson, and particularly from the distinguished professor, who now so ably fills the chair of

The Institutes and practice of Medicine in the
University of Pennsylvania.

had the wind to travel in. Wind
overhead for ground
and 500